Race Concordance and Patient Decision Making: A Study Using Standardized Physicians

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Background

- Race concordance associated with higher patient ratings of interpersonal care
  - Particularly among African Americans
- Often presumed to reflect better interpersonal care
  - Effective communication, culturally appropriate behavior
- Provides one rationale for “cultural competence” training
- But physician race may affect patient perceptions independent of physicians’ behavior

Research Question

- Does physician race affect patients'…
  - Perceptions and ratings of the physician
  - Decision making and choices

  …independent of physician behavior?

Methods

- DVD-based video vignettes
  - “Standardized physicians” played by professional actors
  - Cardiologist discussing CATH results, recommending CABG
  - Filmed from patient point of view (POV)
    - Patient heard but not seen
    - Each vignette done with male and female patient
  - Uniform script, dress, behavior
  - Physician race and gender varied (8 actors total)
  - 2 different vignettes: high and low “patient-centeredness”
    - 8 actors x 2 vignettes each = 16 vignettes

Actors

Methods

- Community hospital-affiliated GIM clinic
- Patients ≥ 40 with CAD or CAD risk factors
  - Smoking, HTN, DM, hyperlipidemia
  - $20 incentive, study of “decisions about heart disease”
- Pre-video questionnaire
  - Cardiac history, familiarity/knowledge about CV procedures, willingness to undergo CABG
- Randomized to view one of 16 vignettes
  - Gender of patient in video matched to subject gender
- Post-video questionnaire
  - Likelihood of undergoing CABG, ratings of video MD

Variables

- Independent variable: race concordance w/ video MD
- Dependent variables:

Ratings of MD	Items	Scale	α
Communication	5	0-4	.95
Interpersonal style/behavior	5	0-4	.92
Competence	4	0-4	.84
Trust MD	11	0-4	.94
		0-4	

Variables

- Independent variable: race concordance w/ video MD
- Dependent variables:
  - "If you were the patient in the video…"

Decision making	Scale	Choices
Perceived necessity of CABG	0-5	Absolutely unnecessary – absolutely necessary
Likelihood of having CABG	0-3	Definitely not Probably not Probably Definitely
Likelihood of 2nd opinion	0-3	
CABG benefits > risks	0-3	

Analysis

- Association of race concordance with each outcome
  - Stratified analyses by patient race
  - GEE-based linear regression to account for clustering (i.e., actor effects)
  - Adjusted for age, sex, CAD history, video MD sex, vignette orientation (low vs. high patient-centeredness)

Results

- 248 of 335 eligible patients participated (74%)
- 238 white or African American
  - 131 white (55%)
  - 107 African American (45%)

		Video MD	
		African American	White
Subject	African American	54 (50.5%)	53 (49.5%)
	White	62 (47.3%)	69 (52.7%)

Patient Characteristics

Characteristic	White	African American
Age	58 y	58 y
Female	60%	58%
HS degree or more	91%	78%
CAD	21%	13%
Prior CABG	7%	0%
Somewhat/very familiar w/CABG	56%	39%
Somewhat/very knowledgeable re: CABG	50%	33%

No significant differences by race concordance vs. discordance

Results: Ratings of MD

- White patients

Rating (all on 0-4 scale)	White MD	AA MD	β	p
Communication	2.52	2.72	-.18	.24
Interpersonal style	2.96	3.02	-.07	.48
Competence	2.89	2.90	-.004	.98
Trust MD	2.47	2.58	.09	.35
Like/comfortable with MD	2.68	2.55	.11	.49

β = coefficient for concordant vs. discordant MD race, adjusted for age, sex, CAD history, video MD gender, vignette orientation

Results: Ratings of MD

- African American patients

Rating (all on 0-4 scale)	White MD	AA MD	β	p
Communication	2.68	3.32	.79	<.001
Interpersonal style	3.02	3.51	.59	<.001
Competence	2.76	3.34	.72	<.001
Trust MD	2.37	3.12	.86	<.001
Like/comfortable with MD	2.68	3.39	.88	<.001
Overall rating of MD	2.34	3.22	1.03	<.001

β – coefficient for concordant vs. discordant MD race, adjusted for age, sex, CAD history, video MD gender, vignette orientation

Results: Decision Making

- White patients

Outcome variable	White MD	AA MD	β	p
Perceived necessity of CABG (0-5)	3.91	3.98	-.05	.73
Likelihood of having CABG (0-3)	2.30	2.29	.06	.62
Likelihood of 2nd opinion (0-3)	2.14	2.11	.02	.89
CABG benefits > risks (0-3)	2.58	2.60	-.03	.69

β = coefficient for concordant vs. discordant MD race, adjusted for age, sex, CAD history, video MD gender, vignette orientation

Results: Decision Making

- African American patients

Outcome variable	White MD	AA MD	β	p
Perceived necessity of CABG (0-5)	3.72	4.06	.48	<.001
Likelihood of having CABG (0-3)	2.09	2.43	.44	<.001
Likelihood of 2nd opinion (0-3)	2.68	2.43	-.28	.03
CABG benefits > risks (0-3)	2.34	2.47	.14	.12

β = coefficient for concordant vs. discordant MD race, adjusted for age, sex, CAD history, video MD gender, vignette orientation

Summary

- African American patients viewed African American physicians more positively than white physicians, even when physicians gave the same information in the same manner
- Race concordance also affected patient decision making re: CABG
  - Not explained by difference in risk/benefit perceptions
  - Explained by interpersonal factors

Limitations

- Hypothetical decision making
- Single center in city with few African American physicians
- Potential unblinding of study purpose

Implications

- Race may affect outcomes of patient-physician interactions in ways that have nothing to do with physician behavior
- “Cultural competence” training is likely to be only a partial solution to disparities stemming from racial barriers in patient-physician relationships
- Increasing access to African American physicians for African American patients may help reduce disparities in health care

"I've seen most of Spike Lee's movies, so I know what you must be going through."

Vignette Versions

Patient Centeredness	Low	High
Patient participation	Low	High
Affect	Neutral, “businesslike”	Positive
Language	Biomedical/complex	Lay
Information giving	Low	High
Empathy	Low	High
Time	Shorter	Longer
Eye contact	Low	High